

Appl. No 10/642,563
Amndt. dated May 31, 2005
Reply to Office action of May 25, 2005

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of claims:

Claims 1 – 5 (canceled)

Claim 6 (new): A greywater diverter and filtering plumbing device connectable into a vertical wastepipe, carrying graywater from a building, for selective diversion and filtration of graywater for constant flow and recycling under gravity without need for graywater storage or any external power source, wherein said device comprises:

- (a) a vessel assembly including a vessel housing, a first upper in-flow connector point for receiving graywater from the wastepipe, a second lower filtered graywater outflow connector point for discharging filtered graywater for recycle, and a third overflow connector point for discharge of overflowing water from the vessel back into the wastepipe;
- (b) a diverter assembly having upper and lower wastewater pipe connection sockets, each connectable into the vertical wastepipe, and a valve between the connection sockets constructed and arranged to give a user the option of flowing graywater directly downward through the upper and lower wastewater pipe connection sockets for sewer disposal, or alternatively set to divert the downward flowing graywater so it is directed to the vessel housing for filtration before exiting the vessel assembly through the lower out-flow connector point for subsequent recycling;

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- (c) a graywater filter situated in the vessel housing;
- (d) a gas-tight access lid to the vessel housing for users to open and close and have access to the graywater filter for servicing; and
- (e) a graywater over-flow return having connection between the vessel assembly overflow connector point and the lower wastewater pipe connection socket, to operate when the valve has been set to divert the graywater for filtration, and in the event of blockage of the filter or outflow connector point, to automatically allow graywater to overflow back from the vessel housing and bypass the filter to exit the lower wastewater pipe connection socket for disposal to sewer, without inhibiting the continued free flow of graywater from the building.

Claim 7 (new): The graywater device of claim 6, wherein the diverter assembly is operable such that when the valve is set for disposal graywater is not recycled and when it is set for recycling, graywater will not flow to sewer disposal, except when blockages causes flow through the graywater over-flow return;

Claim 8 (new): The graywater device of claim 6, wherein the device is installed into a vertical wastepipe below the building's lowest connected plumbing fixture's water trap, and so as to overcome the need for any sewer anti-backflow device.

Claim 9 (new): The graywater device of claim 6, wherein the vessel assembly and access lid are manufactured from ultra-violet resistant PVC materials.